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ABSTRACT

Personal interviews with 344 randomly selected farm operators in three Tennessee counties revealed differences in the characteristics, aspirations, and attitudes of large, small, part time, and retired farmers. These differences are important in understanding agricultural potentials, the impact of agricultural programs, and the future structure of agriculture in Tennessee. Significant age differences were determined, with only six percent of the operators of small farms under 45 years of age compared to 34 percent of the part time operators and 42 percent of the large farm operators. Continuity of farm operations among generations was much higher for large farms. Farmers with less than an eighth grade education made up 54 percent of the small farm category, 40 percent of the part time, and 24 percent of the large farm group. Sixty percent of the large full time farmers used long term credit, compared to 26 percent of the small farmers, 39 percent of the part time, and nine percent of the retired farmers. Seventy-five percent of the operators of small farms said they would not mortgage their farm to purchase more land, compared to 56 percent of the operators of large farms. Twenty-two tables present data on each of the four categories in such areas as characteristics of household heads, percentage of types of farms, land resource and use, crop practices, number of beef cattle, insurance, attitudes toward risk and credit, off farm work and income, and changes in the last five years. (DS)

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A COMPARATIVE STUDY OF SMALL, PART-TIME, RETIREMENT AND LARGE FARMS THREE COUNTIES IN CENTRAL AND WEST TENNESSEE

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SUMMARY

It is apparent that there are basic differences in the characteristics, aspirations, and attitudes of small, part-time, retired, and large farmers. These differences are important in understanding agricultural potentials, the impact of agricultural programs, and the future structure of agriculture in Tennessee. A summary of the characteristics of each category follows.

Small Full-Time Farms

Most small farm operators included in this study started farming before 1965 as full-time farmers. They tend to be older and have less formal education compared with operators of part-time or large farms. Many (26 percent) have age or health (28 percent) handicaps which limit farm activities. Six percent were under 45 years of age and 25 percent had completed high school indicating that some portion of these operators probably have the potential to improve the farm business.

Small farms control 21 percent of all farmland in the region. Most operators own their farms, which average 175 acres of unmortgaged land. An average of 65 acres or 37 percent of this land was classed as cropland, two-thirds of which is not used for row crops. Only a few rent additional land. These farms average 1.2 crop enterprises and two-thirds of them produce crops and utilize somewhat fewer recommended crop production practices compared with other farms. They averaged 1.1 livestock enterprises, the most common being beef cattle (66 percent). Improved and recommended

practices for producing beef were used less often than on large farms but marketing practices were similar. Only about 40 percent of the small farm households had income from off-farm of $1,000 or more. Some of this off-farm work was done by the operator, some by the spouse only, and in some cases both worked.

About one-half of the small farm operators expect no change in their farm operations in the next few years and only 7 percent plan to expand. Many small farm operators consider shortage of capital and low profits as the most limiting factors preventing expansion. Only small percentage of the small farm operators used short- or long-term credit in the farm business. Most of this came from banks and typically was used for fertilizer or land purchases. They use credit reluctantly.

Large Full-Time Farms

Operators of large full-time farms are active farm businessmen. They are younger, have more education, and have fewer health problems. Most started farming as full-time farmers (86 percent) and many were raised on the farm they are currently operating (48 percent). Twelve percent were not farming ten years ago.

These farms average 1,068 acres, and most cropland they manage is planted to row crops. Eighty percent rent at least some of the land they operate. They average 2.6 crop enterprises per farm, and more than 90 percent of the operators have crops. They average 1.5 livestock enterprises per farm with 74 percent of the operators having beef cattle. These operators follow recommended practices

more than other groups, but follow similar marketing patterns. Off-farm jobs were held by someone in 38 percent of the households; in 14 percent of these households, only the operator worked, in 22 percent the spouse worked, and in only 2 percent did both work.

Like most of the operator groups, many consider the lack of capital and profits as their most limiting factors to expansion. Only 17 percent plan to expand the farm business while 50 percent plan no changes. A much larger percent of the operators of large farms use both short- and long-term credit with 60 percent having debt on land buildings.

Part-Time Farms

More than one-half of the part-time farmers started farming as part-time farmers and 22 percent of these entered farming since 1965. More than one-third are under 45 years of age.

Part-time farmers tend to own their land and have more debt for land and home purchases than small-scale full-time farmers. They have an average of 93 acres per farm of which only 23 acres is cropable and less than one-half of these acres is actually planted in crops. They control only 11 percent of the total land in the area. Part-time farmers average less than one crop enterprise per farm with less than half of the farms having crops. Those part-time farmers that grow crops follow similar practices as other farmers. They average 1.1 livestock enterprises with two-thirds of them being beef cattle. Improved and recommended practices for producing beef were followed slightly more frequently than by small farmers but less than large operators, while marketing

practices were similar in all categories.

The primary sources of income was from off-farm work. Forty-four percent of the households had off-farm incomes over $10,000, and one-half reported off-farm jobs held by both husband and wife.

While one-half of these operators expect no change in their operation in the future, 14 percent plan to expand. The most limiting factors mentioned as hindering their farm expansion were lack of capital and lack of available land to buy or rent. A large number also thought that lack of profits and labor were problems.

Retirement Farms

The retired farmer group consists of persons over 65 years of age grossing less than $2,500 per year. This group of farmers has the lowest average level of education (8 years) and 73 percent have health problems limiting farming. Ninety-three percent own their land. They control an average of 70 acres of land with only 12 acres suited for crops. Only 22 percent of this area is planted in crops. Crops are planted on only 35 percent of the retirement farms, but these farmers tend to follow practices in a manner similar to farmers in the other categories.

About one-third of the retired farmers have beef cattle; however, they do not follow recommended practices as well as the other groups. Beef cattle marketing patterns were similar among all groups.

A very small percentage of the operators used short- or long-term credit and only 8 percent have debt on land and buildings. Retired farmers tend not to make changes in their operations, but follow the same pattern year after year until they are ready to completely stop farming.

A COMPARATIVE STUDY OF SMALL, PART-TIME, RETIREMENT AND LARGE FARMS[1] - THREE COUNTIES IN CENTRAL AND WEST TENNESSEE

Roger C. Woodworth, Sammy L. Comer, and Richard J. Edwards[2]

Introduction

Tennessee has a diverse and changing agriculture. Over the years, commercial farms have been increasing in size and involve larger and larger levels of investment and technology. With the resulting decline in manpower needs, the number of small farms declined dramatically during most of the 1950's and 1960's. In 1950, there were 231,631 farms with an average size of 80 acres. In 1974, the number of farms had declined to 102,474 with an average size of 130 acres. This is a decrease of 56 percent in the number of farms and an increase of 63 percent in the size of farms.

During this period, an increasing percentage of farm families began earning off-farm income to combine with their farm income. In 1950, 23 percent of the farmers worked most of their time off

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the farm. In 1974, 53 percent of the farmers worked at another occupation in addition to farming. More recently, there appears to be an increase in interest in the small farm as a way of life. Other farmers are of advanced age and may be arranging their farming operations to make things easier for themselves.

Operators of each of these categories of farmers--small, part-time, retired and large--can be expected to have different goals and to respond differently to given technological, economic, and social conditions. Hence, an improved understanding of agriculture and future potentials can be obtained by describing and analyzing each sector separately. While some information is available from the agricultural census, more specific information is needed.

This report describes selected characteristics of farms and farm operators in different categories of farming. The following is included:

1. Basic data of farm resources, enterprises, use of credit, and farm policies.
2. Farmers' attitudes toward adjustments they could make in the farm business, use of credit, limitations they face, and future outlook.
3. The extent of new entrants to farming and information concerning their characteristics and farm businesses.
4. The extent of off-farm work and changes from and to part-time farming from other farm categories.

Data and Definitions

Data for the study were obtained from personal interviews with 344 farm operators in three west and south central Tennessee counties. A farm operator, for the purposes of this study, was (a) any adult person/family living in the open country on 10 or more acres and/or (b) realizing more than $500 annual gross farm sales in 1974. Farm operators living in towns or unincorporated places with an estimated population density greater than 100 persons per square mile were excluded. Farms were randomly selected that were located in blocks also selected at random. The numbers of farmers interviewed by counties and by categories are shown in Table 1.

Table 1: Summary of Completed Interviews by County and Farm Category

Item	Farm Category			
	Small	Part-Time	Retired	Large
	Number of Farms			
County:				
Carroll	40	20	28	11
Fayette	35	37	26	32
Giles	30	44	34	7
Total	105	101	88	50
	Percent of Farms			
Farm Category as percent of sample	30	29	26	15

There are no standard definitions for large, small, full-time, or part-time farms. In this paper the four operator groups are defined as follows:

1. Small Farms: Farm with a household head, male or female, who worked full time on the farm and where realized gross farm sales were less than $20,000 per year. A full-time operator was defined as one who indicated farming was the primary income source and who worked less than 1,000 hours off the farm for wages in 1974. Operators over 65 years of age who realized more than $2,500 and less than $20,000 in sales were classified as small.
2. Part-Time Farms: Farm with a household head who qualified for the sample and was employed more than 1,000 hours, usually 50 or more weeks, in an off-farm job.
3. Retired Farm: Farm with a household head 65 years old or older who qualified for the sample and realized less than $2,500 gross farm sales in 1974. The lower age limit was reduced to 62 years in a few cases, where it was clear the person was retired.
4. Large Farm: Farm with a full-time operator who realized more than $20,000 in gross farm sales in 1974.

Farm Operators

There were significant age differences among the farmers in the four farm categories. While only 6 percent of the operators

of small farms were under 45 years of age, 34 percent of the part-time operators and 42 percent of the operators of large farms were in this category (see table 2). Most operators in all four farm categories grew up on farms and live in what they consider to be their home county. The continuity of the farm operation among generations appeared to be much higher for large farms. Almost half of the operators of large farms were "living on the home farm" compared with about one-fourth for the other farm categories. Sixty-four percent of the operators of large farms had participated in such agriculturally related youth activities as 4-H or FFA clubs or participated in vocational agriculture training. A much smaller percentage of the operators of the other farm categories had this background, 29 percent for part-time farmers and 19 percent for operators of small farms.

There were also significant differences in levels of education. Farmers with less than an eighth grade education made up 54 percent of the small farm category, 40 percent of the part-time, and 24 percent of the large farm category. A significantly smaller percentage of small farm operators had had post secondary school education compared with part-time or large farm operators.

About three-fourths of the small farm operators indicated they did not have health problems limiting farming operations. The 28 percent of the small farm operators that indicated health as a factor were a significantly higher percentage than for part-time (7 percent) or large farms (13 percent).

These statistics indicate important differences in the characteristics of operators of small full-time, part-time, retired, and large farms. The diversity within each category is also important. For example, while operators of small farms are predominantly of middle or advanced age, this does not mean that there are no significant numbers of younger operators.

Table 2: Characteristics of Households Heads[a]

Item	Farm Category			
	Small	Part-Time	Retired	Large
	- Percent of Farms -			
Grew up on farm	90	90	93	86
Farm in home county	72	76	77	72
Live on home farm	29	26	22	48
Participated in FFA, 4H, NFA or high school vocational agriculture program	19	29	5	64
Why did you start farming?				
Like farming	42	32	26	54
Want to live in country	7	10	1	10
No alternative work	29	32	46	16
In with family	12	12	8	6
Other	11	14	17	14
Age of household head				
Under 45 years	6	34	--	42
45-64 years	68	61	8	48
65 years and over	26	5	92	10
Average age, years	59	48	72	45
Education				
8 years or less	54	40	73	24
9-11 years	21	22	14	18
High school completed	20	25	9	36
Some post secondary school	5	14	5	22
Average education	9	10	8	11
Health status				
Limits farming activities	28	7	85	13
Does not limit	73	93	15	87
Race				
White	93	86	74	94
Non-white	7	14	26	6

a. See Appendix A for chi square tests of significance.

Land Resources

The amount and quality of land resource available and the use made of it is basic to the success of the farm business. One can hypothesize that there are important differences by farm categories. For example, retired farmers could be expected to use land less intensively than younger farmers since older farmers may not want to work as many hours and may not need as high levels of family income. Table 3 shows that retired farmers had a smaller percentage of cropland planted in row crops, indicating support for the hypothesis. A similar hypothesis for part-time farms also appears to have some validity. Part-time farmers had a smaller ratio of cropland in row crops compared to both small and large farms. While one might suppose that small full-time operators would be farming more intensively than large farms, the percentage of cropland in row crops (64 percent) was considerably lower than for large farms (89 percent).

There were large differences in farm size for the different categories of farms. Large farms had many more acres per farm and a much larger percentage of land was cropland. Large farmers controlled 61 percent of the total farmland in the sample while small farmers controlled only 21 percent. Similarly, large farmers controlled 76 percent of the cropland in the sample and small farmers only 16 percent.

Table 3 also shows the tenure of the operators. Eighty percent of the large operators owned some of the land farmed and rented the remainder. Only 22 percent of the small farmers and 14 percent of the

part-time farmers were part owners. This lack of interest in renting land would appear to partly explain their limited volume of business.

Table 3: Land Resources and Use

Item	Unit	Farm Category			
		Small	Part-Time	Retired	Large
Tenure of operator					
Owner-operator	%	73	83	97	16
Part-owner	%	22	14	3	80
Full tenant	%	5	3	0	4
Farmland	acres/farm	175	93	70	1,068
Cropland	acres/farm	65	23	12	639
Cropland	% of farmland	37	25	17	60
Row crops	% of cropland	64	47	22	89
Pasture	acres/farm	60	50	29	196
Control of farmland in 3-county area	% of total	21	11	7	61
Control of cropland in 3-county area	% of total	16	5	2	76

Farm Practices

If the labor resources of small farms are underemployed, one might question why more intensive enterprises are not used to increase incomes. Similarly, one would expect operators of part-time farms to substitute other resources for labor and have enterprises which do not require large amounts of their labor and attention.

Results from this study indicate that differences in organization and intensity of enterprises may not be as great as expected. As shown in table 4, there was an average of 4.1 enterprises on large farms, 2.3 enterprises on small farms, and 1.8 enterprises on part-time farms. Part-time operators were less likely to have either dairy cows or hogs than full-time operators. In general, part-time farms had a similar number of livestock enterprises as small farms, but they had fewer crop enterprises.

Table 4: Summary of Characteristics of Farm Organization

Characteristic	Farm Category			
	Small	Part-Time	Retired	Large
Average number of livestock enterprises per farm	1 1	1.1	NA	1.5
Average number of crop enterprises per farm	1.2	.7	NA	2.6
Percent of cropland planted to crops	64	47	22	89
Noncrop acres per animal unit[a]	5.6	14.7	7.9	5.4

[a]This includes pasture, idle, and waste

Table 5: Crop Practices

Item	Farm Category			
	Small	Part-Time	Retired	Large
	Percent of Farms with Crops			
Number of farms with crops	68	40	35	92
Soil test taken in the last five years?	32	40	29	67
Bulk (dry) fertilizer applied to cropland	56	60	55	87
Liquid fertilizer or anhydrous applied	34	15	26	61
Herbicide (weed killer) applied	45	30	39	70
Pesticides	47	40	42	70

The use of crop management practices is an indication of level of management, use of recommended practices, and efficiency. Data in table 5 show that large farm operators were much more inclined to utilize soil tests, bulk fertilizer, liquid or anhydrous ammonia, herbicides, and pesticides compared with the other farm categories. Only 32 percent of operators of small farms indicated that they had soil tests made in the past five years. This compares to 40 percent of part-time farms and 67 percent of large farms.

As an indication of the levels of management and adoption of improved practices, beef cattle were selected for analysis since a large number of farmers in each category had this enterprise. As indicated in table 6, 66 percent of the small farms, 61 percent of the part-time farms, 36 percent of the retired farms, and 74 percent of the large farms had beef cattle entrprises.

Table 6: Size of the Beef Cattle Enterprise

Item	Farm Category			
	Small	Part-Time	Retired	Large
	- Percent of Farms -			
Farms with beef cattle	66	61	36	74
1-4 head	5	9	7	2
5-14 head	19	21	19	6
15-24 head	17	20	5	--
25-34 head	8	4	2	6
35 and over	17	8	3	60
5 or more head	61	53	29	72

Table 7: Beef Cattle Management Practices

Item	Farm Category			
	Small	Part-Time	Retired	Large
	Percent of Farms with Five or More Head			
Calves vaccinated for blackleg	58	62	35	89
Calves castrated before three months of age	44	53	35	75
Spray, dust, dip for flies bee, and ticks	69	77	54	86
Calves weaned by 9 months	63	77	69	92
Clover, legume seeded in pasture	75	55	31	94
Bulk (dry) fertilizer applied to pasture	55	49	27	89
Pastures mowed annually	50	66	54	78

For purposes of comparing beef cattle management practices only enterprises of five cows or more are included. As shown in table 7 the large farms had higher levels of adoption of the seven practices listed compared to all other farm categories. In general, farms with retired operators had the lowest rates. Practices for small and part-time farmers were similar for most items even though these two categories of farms have very dissimilar labor situations

Marketing Farm Products

Farm operators were asked to identify their top three sources of price information and rank them as first, second, and third choices. Radio or TV reports were the first and second choice for small full-time and retired farmers while newspapers were more often selected as third choice (table 8). Newspapers ranked first among large and part-time farm operators and their second choice was radio or TV market reports. The local elevator or sales barn was often selected as one of the choices by all categories.

Livestock is sold through local auction barns by 45 percent of the small farm operators, 50 percent of the part-time farmers, 33 percent of the retired farmers, and 36 percent of the large farm operators. Many farmers used regional market outlets. This is especially true for the large farms where 26 percent of the operators used regional market. (table 9).

More farmers sold feeder animals than any other type, with the exception of large operators. For this group, 30 percent sold feeder animals and 30 percent sold animals ready for slaughter (table 9). About 4 percent of the part-time and large operators sold breeding stock.

Financial Management and Risk

The appropriate use of money, credit, and insurance is a vital management function needed to collect the appropriate inputs for

production and to increase and protect the resource base for the farm and family.

Table 8: Primary Source of Price Information

	Farm Category								
	Small			Part-Time			Large		
Choice	1st	2d	3d	1st	2d	3d	1st	2d	3d
Source									
Newspaper	24	12	16	26	16	12	34	22	20
Magazine	1	10	17	1	16	11	4	14	10
Radio or TV market report	33	30	8	21	18	13	22	34	16
Local elevator/sales barn	20	11	11	12	10	3	24	8	16
Local buyer or trader	4	3	5	11	3	4	4	8	20
Other	1	2	2	8	3	5	4	2	2
No Source given	37	--	--	21	--	--	4	--	--

Table 9: Livestock Marketing Practices

Item	Farm Category			
	Small	Part-Time	Retired	Large
	Percent of Farms - a/			
Sell Livestock Trhough:				
Local auction sale	48	55	33	38
Local buyer/trader/dealer	2	--	2	--
Direct to other farmers	--	2	1	4
Regional market	13	6	2	26
Direct to packer	--	--	1	4
Other	2	5	--	2
Animals Sold As:				
Feeder animals	35	35	22	30
Ready for slaughter	21	18	8	30
Breeding animals	--	4	2	4
Two or more of above	7	2	1	12

a/ Totals do not add to 100 since some farmers did not sell livestock and others sold more than one product or through more than one type of market.

The most significant difference in use of credit among farms is that large farms are far more likely to use credit--short-term or long-term and for business or family purposes--compared with small, part-time, or retired farm operators (see table 10).

This was true for every credit category except for an off-farm business, a use which involved less than 2 percent of any farm category. While 40 percent of large farm operators used credit for fertilizer and lime, only 16 percent of small farms and 14 percent of part-time farm operators used credit for this purpose. While 52 percent of large farm operators used credit for machinery, only 10 percent of small farm operators and 6 percent of part-time operators used credit for this purpose. The only category of short-term credit that small farmers used by 10 percent or more was for fertilizer and lime. The only use of long-term credit of any magnitude was for purchasing land. Less than 4 percent of these families said that they used credit for family purposes such as food, clothing, and household durables.

Banks were listed as the most often used source of short-term credit by all categories of farm operators. The second most used credit source was the Production Credit Association, except for part-time operators who were more likely to use dealers. The most frequent source of long-term credit was commercial banks for all farm categories (see table 11).

Table 10: Use of Short- and Long-Term Credit

Item	Farm Category			
	Small	Part-Time	Retired	Large
	- Percent of Farms -			
Use Short-Term Credit	27	33	5	58
Machinery	7	8	2	26
Livestock	4	6	--	14
Fertilizer and Lime	16	14	1	40
Purchased feed	7	8	2	20
Food	2	2	1	4
Clothing	3	4	--	8
Household durables	7	6	2	6
Off-farm business	1	2	--	--
Use Long-Term Credit	26	39	9	60
Machinery	10	6	3	52
Livestock	--	2	--	14
Building improvements	--	1	--	6
Land improvements	--	1	1	6
Home improvements	2	4	3	6
Buying land	14	15	2	36
Home purchase	3	10	5	22
Off-farm business	1	2	--	2
Unspecified	3	10	1	4

Table 11: Source of Short- and Long-Term Credit

Item	Farm Category			
	Small	Part-Time	Retired	Large
	- Percent of Farms -			
Use of Short-Term Credit	27	33	5	58
Farmers Home Administration	1	1	--	--
Production Credit Association	8	4	1	24
Commercial banks	11	19	2	30
Dealers	3	6	2	18
Pawn shops	1	--	--	6
Finance companies	--	--	--	--
Merchants	--	4	--	4
Individuals	2	1	--	--
Small Business Administration	--	--	--	--
Use Long-Term Credit	26	39	9	60
Commercial banks	15	26	5	24
Federal Land Banks	2	4	1	10
Individuals	--	2	--	12
Farmers Home Administration	10	16	7	32
Life insurance companies	1	2	--	--
Small Business Administration	--	--	--	2

Table 12: Long Term Debt on Land, Buildings and Home

Amount	Farm Category			
	Small	Part-Time	Retired	Large
		- Percent -		
No debt	73	61	92	40
0 - $2,499	1	10	2	2
$2,500 - $4,999	5	5	2	6
$5,000 - $9,999	8	8	2	2
$10,000 - $19,999	6	10	2	16
$20,000 - $50,000	5	6	--	14
Over $50,000	2	--	--	20

Not only do operators of large farms use credit more often and for more purposes than the noncommercial categories of farm operators, they also had larger amounts of long-term debt for land, buildings, home, and farm. While 50 percent of operators of large farms had mortgages over $10,000 outstanding, only 16 percent of the part-time operators and 13 percent of the operators of small farms had long-term real estate debt of this magnitude. A majority of the farmers had no real estate debt. This was true for 92 percent of retired farms, 73 percent of the small farms, and 61 percent of the part-time farms, but only 40 percent of the large farms (table 12).

Table 13: Insurance

	Farm Category			
	Small	Part-Time	Retired	Large
	- Percent of Farms -			
Insurance				
Farm Buildings	18	27	16	54
Home	51	61	56	68
General farmowners' policy	51	47	31	80
Crops	9	13	1	10
Life	58	87	28	82
Liability	48	68	44	80
Hospital, medical	75	90	73	90
Accidental, death, disability	36	64	24	68
Burial policy	65	64	81	54

Operators of large farms are more likely to carry insurance on the farm business compared with small or part-time farms (table 13). This was true for each category of farm-related insurance. Eighty percent of the large farm operators carried a general farmowner's insurance policy compared with only 51 percent of small farm operators. Similarly, 54 percent of the large farm operators but only

18 percent of the small farm operators had insurance on farm buildings.

Attitudes Toward Risk and Debt

The farmers were asked to agree or disagree with a series of six statements concerning risk and debt.

Reference to table 14 shows that most farmers seek to control the level of risk and uncertainty they assume. For example, they would "let someone else try a new idea to get the bugs out" and would not mortgage their farm to buy livestock, machinery, or more land. Most, however, agreed that "the farmer who gets ahead" is the one with some debt most all the time and disagreed that it is unwise to go into debt to buy items like feed, seed, and agricultural chemicals.

In general, the operators of small farms were more conservative in their attitude toward debt and risk than other farmers. For example, 85 percent would let others try out a new idea first compared with 64 percent for part-time and large farms. Seventy-five percent would not mortgage their farm to purchase more land compared with 56 percent of operators of large farms. Operators of part-time farms generally responded similarly to those of large farms. However, they tended to agree that it was best to save and pay cash and were considerably less inclined to mortgage the farm to purchase more land.

Table 14: Attitudes Toward Risk and Debt

Statement	Response	Farm Category		
		Small	Part-Time	Large
		- Percent -		
It is best to let someone else try out new ideas to get the bugs out.	Agree	85	64	64
	Undecided	1	7	2
	Disagree	14	29	33
The best policy is to save your money until you pay cash.	Agree	54	48	29
	Undecided	5	5	2
	Disagree	41	47	69
The farmer who gets ahead is the one with some debt most all the time.	Agree	82	84	87
	Undecided	7	10	4
	Disagree	11	6	9
My friends and relatives think it is unwise to go into debt to purchase items like feed, seed, and agricultural chemicals.	Agree	40	22	24
	Undecided	8	25	16
	Disagree	52	53	60
I would mortgage my farm to purchase livestock and machinery.	Agree	32	20	27
	Undecided	6	4	2
	Disagree	62	76	71
I would mortgage my farm in order to get a loan to purchase more land.	Agree	21	20	44
	Undecided	4	5	--
	Disagree	75	75	56

Off-Farm Work

All categories of farms had some households with income from a job off the farm. However, as might be expected, the greatest level of such income were reported by farm operations classified as part time. Forty-four percent of operators of part-time farms reported off-farm income in excess of $10,000 per year. The part-time farms also had the highest portion of working wives (49 percent) compared with only 31 percent of the wives from small farms and 24 percent of the wives from large farms (see table 15).

Almost half of the families on small farms had some off-farm income. Thirteen percent had off-farm incomes above $5,000, another 34 percent had off-farm income of less than $5,000. However, 56 percent of the families on small farms either had no off-farm income or obtained an annual amount of less than $1,000. This data support the view that both farm and nonfarm income are important in characterizing income levels for all categories of farms. However, the view that off-farm income has effectively eliminated low family income on most small farms is not supported by this information and is probably not valid for this geographic area.

Table 15: Off-Farm Work and Income

Item	Farm Category			
	Small	Part-Time	Retired	Large
	- Percent -			
Some off-farm work	47	100	11	38
Head of house only	16	51	6	14
Spouse only	23	--	4	22
Both work	8	49	1	2
Household off-farm income				
Less than $1,000	9	--	2	12
1,000 - 2,499	12	4	4	8
2,500 - 4,999	13	8	2	4
5,000 - 7,499	7	24	2	2
7,500 - 9,999	--	20	--	4
10,000 or more	6	44	1	8

Part- and Full-Time Farming

Part-time farming can be a step toward becoming a full-time farmer, it can be a permanent way of life, or it can be a step out of full-time farming. To gain insights into this question, operators were asked to indicate whether they started as a full-time farmer or as a part-time farmer. Overall, 78 percent of the farm operators started out as full-time farmers and only 22 percent started as part-time farmers (table 16).

Table 16: Percent of Farmers Starting Farming Full-Time and Part-Time by Type of Farm and by Age of Operator

Age of Operator and Farm Category	Started Farming		Total
	Full-Time	Part-Time	
	- Percent of Farms -		
Total	78	22	100
Large Farms			
Less 45 years	36	4	40
45 - 64 years	42	8	50
Over 65 years	8	2	10
All ages	86	14	100
Small Farms			
Less 45 years	5	0	5
45 - 64 years	62	9	71
Over 65 years	24	1	25
All ages	90	10	100
Part-Time			
Less 45 years	7	27	34
45 - 64 years	42	22	63
Over 65 years	3	0	3
All ages	51	49	100
Retired			
45 - 64 years	7	0	7
Over 65 years	84	9	93
All Ages	91	9	100

Current part-time farms is the only category with large numbers of the operators starting as part-time farmers. Forty-nine percent of them started as part-time farmers and 51 percent began farming on a full-time basis. Quite a different story emerges when the current full-time farmers are classified on this basis. Fourteen percent of the large farm operators started as part-time farmers and 10 percent of the small-farm operators started on a part-time basis. While part-time farming may be a route into full-time farming for some, few seem to follow it.

While there is no indication of significant numbers of farmers changing from part-time to full-time operations it is probable that some of the operators of small farms could have obtained higher levels of living if they had accumulated more resources by starting part time. However, many started farming at a time when there were relatively few off-farm jobs near rural areas. Presumably, many did not foresee the changes in technology which would restrict their livelihood with a limited land and capital base. Table 16 also shows that most of the younger farm operators started farming and continue as full-time operators of large farms or as part-time operators. This would suggest that when current older farmers reach retirement, the region will have a larger proportion of large full-time and small part-time operations and fewer small full-time farms. While there is little indication that retiring small farm operators are being replaced by younger operators, this trend could change.

Characteristics of Part-Time Farmers by Start in Farming

The part-time farmers who started farming full time are different in many respects than those who started farming on part-time farms. As a group, they are ten years older (see table 17--53 vs. 43), started with larger farms (116 acres vs. 63 acres), and have made more changes in the size of farm operated than the part-time farmers who started out with a part-time operation. On the average the acreage of the farms of those who started as full-time farmers has declined while those who started as part-time farmers have increased their average holding. The younger group who started as part-time farmers have not made as many changes; 31 percent added acreage while 8 percent decreased their holdings.

Both groups work full-time at their off-farm jobs and there is little difference in the average distance they travel to the job. Their average drive is between 20 and 21 miles one way to work.

Their expectations about future work reflect a somewhat different orientation, perhaps due in part to age differences. While 12 percent of those who started as full-time farmers expect to quit their off-farm job within five years, none of those who started as part-time farmers anticipate quitting. Eighty-two percent of those starting out as part-time farmers and 60 percent of those starting as full-time operators anticipate the same level of off-farm work activity in five years. Thus major portions of both groups expect off-farm work to continue to dominate their work life.

Table 17: Selected Characteristics of Part-Time Farmers by Start in Farming

Item		Started Farming	
		Full-Time	Part-Time
Number of farmers		52	49
Average age		53	43
Average farm size (acres			
Started		116	63
Now		105	84
Percent increased acreage		40	31
Percent decreased acreage		38	8
Hours per year operator works off farm		1,921	2,060
Average miles to work		20	21
Off-farm work expectations in 5 years:			
(Percent)	a) none -	12	0
	b) same -	60	82
	c) less -	19	10
	d) more -	10	8
Reasons for living on the farm:			
(Percent)	a) cheaper to live	25	3
	b) supplement income	12	20
	c) like to farm	3	0
	d) produce own food	17	16
	e) live in country	43	61

Important segments of both groups listed the opportunity to supplement income, produce their own food, and the fact that they liked to live in the country as reasons for living on the farm. However, significantly larger percentages of the part-time farmers who started out as full time operators gave the reason that it was a cheaper place to live (25 percent compared to 3 percent). Significantly larger percentages of operators who started out part time gave supplemental income (20 percent compared to 12 percent) and the desire to live in the country (61 percent compared to 43 percent) as reasons.

Information was not obtained in this study as to why operators who started farming full time later changed to part-time farming. Presumably, a major reason was the unfavorable outlook in earlier years for making a living from farming with limited resources. Probably many of these operators had selected farming as their occupation and adjusted later to changing circumstances. Probably many of those who started farming part time had selected an off-farm occupation and are farming part time for life style and supplemental income reasons. In any event, these data tend to suggest that part-time farming is a permanent part of the farm structure.

Future Outlook and Changes in Farm Operations

Continuous change is needed in farming operations as new technology is developed and as demand for specific farm products and other economic conditions change. Changes in the supply of family labor, the health of the operator or the need for family income may also require changes in farm operations.

All operators were asked about changes they had made in operations in the last five years and what changes they anticipated in the future. The responses of operators on past changes are shown in table 18.

Large full-time operators more often recalled trying a new crop or livestock practice or enterprise than did the small or part-time farm operators. Operators of large farms were also much more likely to have made land improvements or added land through rental or purchase.

Comparisons between operators of small and part-time farms showed the former more likely to emphasize crops and the latter to emphasize livestock changes. Part-time operators were more likely to have purchased more land.

Table 18: Changes Reported for Last 5-Year Period (1970-74)

Change	Farm Category			
	Small	Part-Time	Retired	Large
	- Percent of Farms -			
Tried new crop/veg. practice	18	9	6	69
Tried new crop/veg. enterprises	27	9	9	25
Tried new livestock practice	9	19	3	35
Tried new livestock enterprise	1	8	1	6
Cleared land	26	27	12	62
Improved pasture	18	19	10	25
Constructed ponds/drainage	9	8	3	35
Purchased land	3	16	3	29
Rented land	25	16	4	56
Reduced crop acres ,	34	21	27	15
Reduced number of livestock	27	27	25	9
Rented out land	34	21	30	8

Overall, most operators did not try a new livestock enterprise during the 5-year period. New crops were tried on about one-fourth of the large and small farms, but by only 9 percent of the part-time farms.

Land clearing and pasture improvement was undertaken on many farms. Clearing was listed on 62 percent of large farms, 26 percent

on small farms, and 27 percent on part-time farms. Pasture improvement took place on 25 percent of the large farms, 18 percent of the small farms, and 19 percent of the part-time farms.

The specific question on future plans was "As you look forward to the next 3- to 5-year period, how will your farm business change?" The predominant attitude for the future was one of "no change" (table 19). Large and part-time farm operators were more interested in expansion than were small farm operators, but one-fifth of the large farm operators indicated that they would be cutting back on their operations. Among operators planning to expand, the most often mentioned items were land purchases, land clearing, pasture improvements and adding facilities.

Another aspect of expectations of future change is shown in table 19. The question asked of each operator was, "Do you think a member of your family will operate your farm when you are no longer able?" For the operators of large farms, 70 percent indicated that a family member would operate the farm or that there was a strong possibility of this. A similar response was given by about 50 percent of the operators of small farms and 32 percent of the operators of part-time farms.

When operators were asked to rank the first, second, and third most important factors limiting farm expansion (table 20) insufficient profits, lack of capital, and lack of available land to buy or rent were considered to be the most important by all three groups. Only a few operators said the ability to operate a larger unit or lack of machinery and equipment were the most limiting factors.

In general, differences among groups were not large. The percentage of part-time farmers indicating a lack of labor as the most important reason for not expanding (17 percent) was somewhat higher than the percentage of large farm operators (9 percent) or of small farm operators (12 percent).

Table 19: Future Outlook

	Farm Category			
	Small	Part-Time	Retired	Large
	- Percent of Farms -			
Do you expect changes in the farm business in the next 3-5 year period				
No change	52	55	67	47
Expand	7	14	--	17
Reduce operation	12	8	--	19
Retire	10	5	19	4
Don't know	19	18	14	13
Do you think a member of your family will operate your farm when you are no longer able?				
Yes or strong possibility	50	32	35	70
Possibly	26	53	24	10
No	11	10	15	10
No response	13	6	26	10

Table 20: Farm Operators' Ranking of Factors That Limit Expansion

Factors	Farm Category					
	Small[a/]		Part-Time[b/]		Large[c/]	
	- Percent -					
	1st	2d	1st	2d	1st	2d
Lack of available land to buy or rent	17	8	22	6	17	15
Lack of capital	28	39	27	45	22	45
Lack of labor	12	13	17	13	9	15
Lack of profits	29	18	19	17	46	17
Lack of machinery & equipment	4	5	2	3	--	2
Ability to operate large unit	2	1	3	--	2	--
Other/no response	9	16	9	16	4	7

a/ The most frequently mentioned 3d choices were lack of capital, 29 percent; lack of labor, 21 percent; and lack of profit, 12 percent.

b/ The most frequently mentioned 3d choices were lack of capital, 26 percent; lack of labor, 23 percent; and lack of profit, 14 percent.

c/ The most fequently mentioned 3d choices were lack of capital, 24 percent; lack of labor, 24 percent; and lack of profit, 17 percent.

Attitudes, Goals, and Future Outlook

A series of general statements concerning his outlook for the future were read to each farmer and he was asked to agree or disagree with each. The responses by farm category are shown in table 21.

Land Related Attitudes

There are strong indications that small and part-time farmers place a much greater value on land ownership than do large farm operators. Large farm operators are more likely to rent much of the land they operate. This may reflect social community attitudes and may also be related to orientations toward minimizing risk compared to maximizing profit.

Operators of small and large farms appear to have similar attitudes concerning an appropriate minimum farm size for a young couple. Fewer part-time operators, however, agreed that 175 to 200 acres was necessary, probably giving more weight to the potential for obtaining income off the farm.

Operators of small farms overwhelmingly agreed (95 percent) with the statement that farming was getting so competitive that small farms are going to be squeezed out. Fewer (69 percent) large farm operators agreed with the statement.

Most farmers in each category agreed that they were "farming to make as big a profit as I can." While 91 percent of the operators of large farms agreed with this statement, 82 percent of small farm and 61 percent of part-time operators agreed.

The second statement relating income and other goals stated as, "my decision to farm was based more on income than on the opportunity to be my own boss, make things grow and live in the country," showed few differences among categories of farmers and a much greater emphasis on other goals than income.

Table 21: Farmers Attitudes Concerning Farming

Statement	Response	Farm Category		
		Small	Part-Time	Large
		- Percent -		
A young man going into farming for the profit of it should own land rather than rent.	Agree	64	69	38
	Undecided	6	14	13
	Disagree	30	17	49
I am satisfied with my farming operation as it is.	Agree	72	54	64
	Undecided	3	14	2
	Disagree	25	32	33
I am farming to make as big a profit as I can.	Agree	82	61	91
	Undecided	5	22	2
	Disagree	12	17	7
My decision to farm was based more on income than on the opportunity to be my own boss, make things grow and live in the country.	Agree	38	30	29
	Undecided	3	14	2
	Disagree	59	56	69
Farming is getting so competitive small farmers are going to be squeezed out.	Agree	95	86	69
	Undecided	1	2	7
	Disagree	4	12	24
I would not advise a young couple to go into farming unless they can start with at least 175 to 200 acres.	Agree	78	59	75
	Undecided	3	10	7
	Disagree	19	32	18
I am looking forward to the day I can retire from farming and do some other things.	Agree	49	26	36
	Undecided	16	24	11
	Disagree	36	49	53

Operators of small farms were the most satisfied with the farming operations (72 percent) while part-time operators were less satisfied (54 percent) than small or large farm (64 percent) operators. This apparent feeling of lack of satisfaction with their farming operations by part-time farmers could imply that some system of technical assistance for this group would be in demand if tailored to their time and needs.

New Entrants to Farming

Operators who started farming since 1965 were classified as new entrants to farming. This group of farmers made up 10 percent of the sample. About 60 percent of the new entrants were part-time farmers, 16 percent were operators of small farms, and 16 percent operated large farms. The remaining 8 percent were retired persons mainly living on the farm for personal reasons (see table 22).

New entrants were somewhat younger than all operators sampled in every category (table 22 compared to table 2). They had somewhat more schooling.

More than two-thirds of the new entrants grew up on a farm and 75 percent had returned or started farming because of their "love for farming and/or outdoor life." The one-third who did not grow up on a farm is a larger percentage than the full sample of farms and probably a larger percentage than would have been the case in previous years.

The operators of large farms classified as new entrants managed an above-average number of acres of land, 1,594 acres compared with

1,068 acres for large farms in the total sample. Small and part-time operators who are new entrants farm similar acreage as small and part-time farmers in the total sample. About half the new entrants had farm sales of less than $1,000. Only 18 percent of the operators of small and part-time farms had sales above $5,000 annually. While most of the part-time farmers had off-farm incomes above $5,000 per year, five of the six small-farm families had off-farm incomes of less than $1,000 annually.

More than half of the operators did not foresee changes in their operations in the future. However, 11 of the 28 part-time and small farmers expect to expand the farming business by buying, clearing, or renting land or adding livestock.

Table 22: Farm and Operator Characteristics and Outlook of New Entrants into Farming

	Farm Category			
	Small	Part-Time	Large	Total[1/]
	- Number of Farms -			
Number of operators	6	22	6	34
Years of age				
Less than 35	1	9	3	13
34 - 54	1	13	2	16
55 and over	4	--	1	5
Years of education				
Less than 12	4	17	3	24
13 and over	2	5	3	10
Operators grew up on farm	2	19	2	23
Number acres per farm	177	73	1,594	--
Dollars farm sales				
Less than $1,000	3	13	--	16
$1,000 - $2,499	--	5	--	5
$2,500 - $4,999	1	1	--	2
$5,000 - $10,000	1	1	--	2
$10,000 and over	1	2	6	9
Dollars off-farm income				
Less than $1,000	5	--	5	10
$1,000 - $4,999	--	3	--	3
$5,000 - $9,999	--	13	--	13
$10,000 and over	1	6	1	8

Table 22 (Continued)

Item	Farm Category			
	Small	Part-Time	Large	Total[1/]
	- Number of Farms -			
In the next 3 to 5 years, how will your farm business change?				
No change	2	10	2	14
Expand	3	8	1	12
Reduce operation	--	--	1	1
Retire	--	--	--	--
Don't know	1	3	2	6
If expand, how?				
Purchase land	3	8	1	12
Rent land	1	3	--	4
Add cattle or hogs	1	5	1	7
Clear land	1	--	--	1

[1/] Excludes eight operators classified as retired.

Appendix Table A

Chi Square Tests of Significance

Factor and Farmer Response	Category Comparison	Chi Square[a]
Live on home farm	Small - Part-Time	.2
Small-29%, Part-Time-26%	Small - Large	5.6 **
Large-48%	Part-Time - Large	7.5 ***
Participated 4H, FFA, etc.	Small - Part-Time	2.6
Small-19%, Part-Time-29%	Small - Large	30.7 ***
Large-64%	Part-Time - Large	17.3 ***
Age of household head under 45	Small - Part-Time	25.7 ***
Small-6%, Part-Time-34%	Small - Large	31.0 ***
Large-42%	Part-Time - Large	1.0
8 years or less of education	Small - Part-Time	3.9 **
Small-54%, Part-Time-40%	Small - Large	11.8 ***
Large-24%	Part-Time - Large	3.6 *
Some post secondary education	Small - Part-Time	5.1 **
Small-5%, Part-Time-14%	Small - Large	10.9 ***
Large-22%	Part-Time - Large	1.6
Health Limits farming	Small - Part-Time	15.3 ***
Small-28%, Part-Time-7%	Small - Large	3.5 *
Large-13%	Part-Time - Large	2.0

a. Chi Square: Probability of a larger value of chi square:

6.6	1%	***	highly significant
3.8	5%	**	
2.7	10%	*	significant